receiving treatment for tuberculosis in Soweto, South Africa. A composite diagnostic standard for *Streptococcus pneumoniae* was considered positive if any of routine blood culture, good quality sputum culture or Gram stain, urinary immunochromatographic testing (ICT) for pneumococcal C-polysaccharide (Binax® Now) or *lytA* real-time (rt) PCR on blood were positive for pneumococcus or lytA rtPCR on NPS was ≥8000 copies/ml. Other bacterial aetiologies were identified by routine blood cultures and sputum cultures, *mycobacterium tuberculosis* (TB) was assessed by acid-fast staining of sputum. Multiplex rtPCR for respiratory viruses and atypical bacterial pathogens (Fast-track diagnostics Respiratory pathogens plus) was used on NPA and triplex rtPCR for *S. pneumoniae*, *Staphylococcus aureus* and *Haemophilus influenza*e from whole blood.

Results: Among 280 HIV-infected persons with CAP, pneumococcus was the most frequently identified organism (n = 151 [53.9%], of which 79 [28.2%] were monoinfections; 75 [26.8%] by molecular diagnostics only), followed by TB (n = 69 [24.6%], of which 39 [13.9%] were monoinfections). 48 (17.1%) viral or mycoplasma infections were identified (10 as monoinfections, 38 as combinations mostly with pneumococcus [n = 32]). *Staphylococcus aureus* and *Haemophilus influenzae* were frequently detected in the nasopharynx, but only rarely isolated from blood or sputum cultures. Up to 5 different organisms were simultaneously present. No aetiology was identified in 22.9% of patients.

Conclusion: Using a combination of traditional and molecular methods, an infectious aetiology could be identified in the majority of episodes of acute CAP in HIV-infected South African adults. A large proportion was attributable to polymicrobial infections, most of which included the pneumococcus or tuberculosis. Viral monoinfections were relatively infrequent. Further work is necessary to delineate the utility of bacterial or viral identification from nasopharyngeal specimens as diagnostic tools in CAP.

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Common causes of bacterial meningitis at Mthatha Hospital Complex, Eastern Cape South Africa

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Background: The Mthatha hospital complex serves as a primary and referral centre to children in the OR Tambo district in thr Eastern Cape. The aim was to detained the common bacteriological causes of meningitis in children who present at the hospital.

Methods & Materials: A retrospective cross sectional study was done. The study from January 2012-December 2012. Cerebrospinal fluids obtained from children in paediatric wards and outpatients of nelson mandela and mthatha general paediatric wards were analyses to identify the most common causes of bacterial meningitis.. Children admitted to the neonatal unit were excluded. The age group analysed were 1month-12years.

Results: 182 patients met the study criteria. 14/182(7.7%)had a positive gram stain. csf culture was positive in 11/182.(6.0%).Only one patient had a bacterial pcr done as part of new NICD criteria for csfs with more than 100 white blood cells. It was positive for neissera meningitis serogroup Y. Bacterial antigens which are done at the onsite lab were positive in 8/182 (4.3%)

The most prevalent organism was strep pneumoniae (46%) followed by neissera meningitids (23%).Strep group B(1/182-7%),Strep GroupD (1/182-7%),e coli (1/182-7%),hemophilus influnzae (1/182 -6%)and proteus mirabilis (7%). Neissera targeted the older children typically 10-11yr olds.

Conclusion: The most prevalent organism was Strep pneumoniae. Currently there is a pcv13 vaccine available. Vaccines against neissera meningits do not form part of the public immunisation programme. More surveillance and studies are needed.The presence of Hib vaccine in the immunisation schedule has led to a decline in H influenza.CSF pcr could help identify organisms in patients with pleocytosis but negative gram stain and culture.Other causes of patients with csf pleocytosis include TB meningitis,viral meningitis but these were not part of the study. As a referral centre most children presenting to the hospital have already received an initial dose of antibiotic as part of INtergrated management of childhood illnesses or a course of antibiotics at their local hospital could sterilize the Csf which could yield to the lower yield of positive Csf cultures and antigens. Use of pcr might help us identify more pathogens.

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The role of Chlamydophila pneumoniae in the etiopathogenesis of schizophrenia and brain-derived neurotrophic factor (BDNF), neurotrophins like neurotrophin 3 (NT3) levels: A worldwide retrospective study

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Background: It's known that, in the occurrence of a neuropsychiatric disease like shisophrenia, multifactors such as genetic predisposition, neurodevelopmental disorders, social end environmental factors play a role. It was suggested that the synthesis of neurodevelopmental factors such as brain-derived neurotrophic